



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:  
Ivanov et al.

Serial No. 10/624,397

Filed: July 22, 2003

For: MULTI-STAGED HEATING  
SYSTEM FOR FABRICATING  
MICROELECTRONIC DEVICES

§ Group Art Unit: Unknown  
§ Examiner: Unknown

§ Atty. Dkt. No. 5866-00400

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313, on the date indicated below:

10-29-03

Date

*Pamela Gerik*

Pamela Gerik

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

Sir:

Applicant requests consideration of  the references listed on the attached Form PTO-1449 and/or  the additional information identified below in paragraph 3. A copy of each reference listed on the Form PTO-1449 is enclosed.

1. This Information Disclosure Statement is submitted:

- a.  within 3 months of the filing date of a national application other than a continued prosecution application under § 1.53(d);  
 within 3 months of the date of entry of the national stage as set forth in § 1.491 in an International application;  
 before the mailing date of a first Office Action on the merits; or  
 before the mailing of a first Office Action after the filing of a request for continued examination under § 1.114.
  
- b.  after the events of above paragraph 1a and prior to the mailing date of a final Office Action or Notice of Allowance, and thus:  the certification of paragraph 2 below is provided, or  a fee of \$180.00 is enclosed.
  
- c.  after the mailing date of a final Office Action or a Notice of Allowance and prior to payment of the issue fee, and thus: the certification of paragraph 2 below is provided and a fee of \$180.00 is enclosed.

2. It is hereby certified:
- that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or
  - that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in § 1.56 (c) more than three months prior to the filing of the Statement.
3.  Consideration of the following additional information (including any co-pending or abandoned U.S. applications, prior uses and/or sales, etc.) is requested:
- SN 10/103,015 entitled APPARATUS AND METHOD FOR ELECTROLESS DEPOSITION OF MATERIALS ON SEMICONDUCTOR SUBSTRATES; and SN 10/242,331 entitled METHOD AND APPARATUS FOR ELECTROLESS DEPOSITION WITH TEMPERATURE-CONTROLLED CHUCK
4. For each non-English language reference listed on the attached Form PTO-1449:
- reference is made to an English language translation submitted herewith, and/or
  - reference is made to a foreign patent office search report (in the English language) submitted herewith, and/or
  - reference is made to an English language translation of a foreign patent office search report submitted herewith, and/or
  - reference is made to the concise explanation contained in the specification of the present application at page(s) \_\_\_\_\_, and/or
  - reference is made to the concise explanation set forth below:
5.  Applicant also offers the following comments for the Examiner's consideration:
6.  Also enclosed is a copy of a foreign search report citing these references.
7.  The listed documents were brought to the attention of the Applicant(s) after payment of the issue fee in the captioned case. The documents were cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. Applicant(s) request this Information Disclosure Statement and attached Form PTO-1449 be placed in the file of the captioned application.
8.  Applicant(s) requests that the Information Disclosure Statement and attached Form PTO-1449 and references, which are being filed before the grant of the patent and pursuant to 37 C.F.R. § 1.97(i), be placed in the file of the captioned application.

If any required fees are missing, the Commissioner is authorized to charge said fees to Conley Rose, P.C. Deposit Account No. 03-2769/5866-00400.

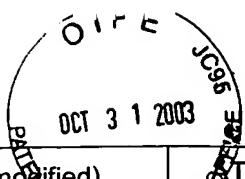
Respectfully submitted,



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Date: Oct. 29, 2003



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| <b>Form PTO-1449</b> (modified)<br>List of Patents and Publications<br>For Applicant's Information<br>Disclosure Statement<br>(Use several sheets if necessary) | ATTORNEY OR FIRM NAME<br>CITY. DKT. NO. 5866-00400<br>APPLICANT: Ivanov et al.<br>FILING DATE: July 22, 2003 | SERIAL NO. 10/624,397<br>GROUP: Unknown |
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## **U.S. PATENT DOCUMENTS**

## **FOREIGN PATENT DOCUMENTS**

| EXAM.<br>INITIALS | REF.<br>DES. | DOCUMENT NUMBER | DATE   | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION<br>YES/NO |
|-------------------|--------------|-----------------|--------|---------|-------|--------------|-----------------------|
|                   | A3           | 02/34962        | 5/2002 | WO      |       |              |                       |
|                   |              |                 |        |         |       |              |                       |
|                   |              |                 |        |         |       |              |                       |

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

|  |    |  |
|--|----|--|
|  | A4 | Riedel, "Electroless Nickel Plating," 1991, p. 39.   |
|  | A5 | O'Sullivan et al., "Electrolessly deposited diffusion barriers for microelectronics," IBM Journal of Research and Development, Vol. 42, No. 5, 1998, 20 pages. |
|  | A6 | Lopatin et al., "Selective Electroless CoWP Deposition onto Pd-Activated In-Laid Cu Lines," VMIC Conference, 1997, pp. 219-224.                                |
|  | A7 | Shacham-Diamond et al., "High aspect ratio quarter-micron electroless copper integrated technology," Microelectronic Engineering 37/38, 1997, pp. 77-88.       |
|  | A8 | Lantasov et al., "New plating bath for electroless copper deposition on sputtered barrier layers," Microelectronic Engineering 50, 2000, pp. 441-447.          |

**EXAMINER:**

**DATE CONSIDERED:**

**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.